

What is claimed is:

[Claim 1] A method for providing DC bias to an MMIC power amplifier, said method comprising the steps of:

attaching a first end of a bond wire directly to a matching structure;
and,

attaching a second end of a bond wire to a DC bias source.

[Claim 2] A MMIC having transistors, a RF input, a RF output, and a RF matching structure, wherein said transistors are configured to receive a DC bias feed, and wherein said MMIC is configured to receive the DC bias feed, from off the MMIC, directly at the RF matching structure.

[Claim 3] A MMIC having transistors, a RF input, a RF output, and a matching structure, wherein said transistors are configured to receive a DC bias feed, and wherein the DC bias feed is not received to the MMIC at the edge of the MMIC.

[Claim 4] A MMIC having transistors, a RF input, a RF output, and a RF matching structure, wherein said transistors are configured to receive a DC bias feed, and wherein said RF matching structure is prepared with an ohmic material to receive said bias feed directly from off the MMIC.

[Claim 5] A MMIC having transistors, a RF input, a RF output, and a RF matching structure; wherein said transistors, RF input, RF output, and RF matching structure lie in a plane, wherein said transistors are configured to receive a bias feed, and wherein said RF matching structure is prepared with a material to receive said bias feed from a direction out of the plane of the MMIC chip.

[Claim 6] The MMIC of claim 5, wherein said material is at least one of an ohmic material and a metal.

[Claim 7] A method of RF power amplification comprising the steps of:

electrically communicating a DC bias to a MMIC power amplifier,
wherein said MMIC power amplifier comprises a RF matching structure, and

wherein said DC bias is electrically communicated via a bond wire that is coupled directly to said RF matching structure; and,
blocking unwanted RF signals with the bond wire.

[Claim 8] The method of claim 7 wherein the blocking step further comprises blocking unwanted RF signals with the high impedance of the bond wire.

[Claim 9] A reduced size MMIC relative to a conventional MMIC, wherein a conventional MMIC is defined as a MMIC having at least one bias feed line on said MMIC and wherein a conventional MMIC receives a bond wire at an exterior portion of said conventional MMIC, said reduced size MMIC comprising at least one less bias feed line than the conventional MMIC; and, wherein said reduced size MMIC is configured to receive a bond wire at an interior portion of said reduced size MMIC.

[Claim 10] The reduced size MMIC of claim 9 wherein said reduced size MMIC is about 15% smaller than said conventional MMIC, and wherein a matching structure located within said interior portion of said reduced size MMIC is provided with an ohmic material that is configured to facilitate receiving said bond wire.